

MAR 4XXX NEW PRODUCT DEVELOPMENT

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Course Objectives

New product development is an increasingly important marketing activity in most established firms. Success at product development often determines the fate of the firm. Unfortunately, an astonishingly large percentage of new products fail, and the cost of failure in terms of money and time can be enormous.

Our objective is to become as proficient as possible at managing the product development process. Given the track record of even very sophisticated firms, there is no obvious formula for success. However, this course should provide you with a structured way of thinking about product development, emphasizing a customer-centric approach to innovation. It will provide you with an up-to-date toolbox for developing new products which should be relevant whether you work for a startup or a large company, whether you sell products or services, and whether your customers are individual consumers or companies.

Materials

- Cases: available through Target Copy.
- Required and recommended readings: on the library's Electronic Reserve system.
- Class notes: on Sakai, usually 1-2 days before class.

It is the student's responsibility to obtain and read the required materials. Occasionally, I may distribute relevant business articles by email or in class.

Course Format and Structure

The class will consist of a combination of lectures, hands-on assignments, and case study discussions. Students should come prepared and be ready to contribute to the discussion and analysis. I have tried to pick readings and cases that are interesting, non-technical, and mostly short.

A key component of this course is a product development project which is intended to give you some hands-on experience with the development process. The project will be done in teams. The nature of the project will become clearer as the course progresses.

A tentative schedule is provided. It is difficult to anticipate the exact speed at which we will progress, so please be alert to changes in the schedule.

Evaluation of Student Work

1. Individual Components (35%)

- a. **Opportunity Generation and Screening (15%)**
- b. **Class Contribution (10%):** Class contribution is judged by quality, not just quantity. I will assess how your contributions enhance both the *content* and *process* of a discussion.
- c. **Quiz (10%):** Towards the end of the course, you will be quizzed in class on the required readings.

2. Group Assignments (65%)

- a. **Project Proposal (10%)**
- b. **Contextual Research (20%)**
- c. **Final Presentation (25%)**
- d. **Nestlé Refrigerated Foods Case (10%):** Hand in a summary of your quantitative and qualitative analysis of the Nestlé case. Make sure to address all the questions in the assignment (see below). This assignment should not exceed three pages.

Letter grades will be assigned as follows:

If you earn at least:	You will earn:
92%	A
88%	A-
85%	B+
82%	B
78%	B-
75%	C+
72%	C
68%	C-
65%	D+
62%	D
60%	D-

(Scores below 60 points will result in an E.)

Grades are translated into grade points by the University Registrar according to guidelines posted on <http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html>.

Course Schedule

Date	Topic	To do	Reading
23-Aug	Introduction		
25-Aug	Why do new products fail?		1-2
30-Aug	Case: Sweetwater		
Module 1 Idea Generation			
1-Sep	Consumer inquiry methods		3-4
6-Sep	Observation in context		5-7
8-Sep	Creating New Markets		8-9
13-Sep	Creativity and Idea Screening		10
15-Sep	Managing Creativity, Case: IDEO		
20-Sep	Opportunity Screening	Pitch an opportunity in class	11
Module 2 Designing the product			
22-Sep	Consumer analysis		
27-Sep	Prototyping; Quiz 1 (module 1)	Submit teams and project proposal	
29-Sep	Designing Services; Case: Bank of America		12
4-Oct	Contextual research presentations	Submit contextual research report	13
6-Oct	Observational research presentations (continued)		
Module 3 Testing			
11-Oct	Design		
13-Oct	Design – Objectified		
18-Oct	Concept testing		14
20-Oct	Forecasting		15-16
25-Oct	Diffusion Models		17
Module 4 Launch			
27-Oct	Tradeshow	Prepare prototype/storyboard	
1-Nov	Tradeshow (continued)		
3-Nov	Launch strategies		
8-Nov	Case: Clocky		
10-Nov	Case: Hasbro Games - POX		
15-Nov	Review/Project Day	Submit Nestlé assignment	
17-Nov	Quiz 2 (modules 2-3)		
22-Nov	Case: TiVo		
29-Nov	Case: Aqualisa		
1-Dec	Project presentations	Present project & prototype, submit final report	
6-Dec	Project presentations (continued)		

Required Readings

1. The Myth of Commoditization
2. Imitation is More Valuable than Innovation
3. Turn Customer Input into Innovation
4. Putting Customers in the Wish Mode
5. Customers as Innovators
6. Spark Innovation Through Empathic Design
7. Needfinding: The Why and How of Uncovering People's Needs
8. Blue Ocean Strategy
9. Disruptive Technologies
10. The Innovator's DNA
11. Innovation Tournaments, (chapter 4)
12. Service Blueprint
13. Emotional Design (chapter 3)
14. Eager Sellers and Stony Buyers
15. Scenario Planning: A Tool for Strategic Thinking
16. Discovery-Driven Planning
17. Crossing the Chasm (chapters 1 & 2)

Class Rules

1. Attend all classes. Arrive on time and stay for the duration. Let me know in advance if special circumstances arise. Missing more than one class will affect your participation grade, regardless of the reason. Missing more than three classes can result in an Incomplete grade.
2. Use a nameplate. This will help me get to know you, as well as monitor and record your class contribution.
3. Turn in your assignments on time, always before class on the due date. If an emergency will cause you to miss a quiz or a deadline, you must contact me before class on the due date to arrange for a make-up and provide written documentation as to the reason. If you do not notify me in advance, you will get a 0 for the assignment. Timeliness of the Darwinator task is particularly critical.
4. No laptops or cell phones in class.
5. This course follows general University policy regarding academic honesty and accommodations for students with disabilities.
6. Student requesting classroom accommodations for their disability, including changes to the testing environment, must first register with the Dean of Students Office. The Dean of Students Office will provide documentation/forms to the student, who must then provide documentation to the faculty member. Please note that the Dean of Students Office may require 7-10 days lead time to process the request.

Project Overview and Timeline

The project is intended to simulate the early development stages of a new product or service. Although seven weeks may seem like a short time, preliminary product development must often be completed within a similar window.

By 13-Sep Opportunity Generation and Screening (individual assignment)

Generate five opportunities for a new product/business. Although you should feel free to consider any compelling concept, for our purposes the most valuable ideas are those that:

- Serve markets that include 20-30 year-old professionals (in part so you can use people you know as representative customers).
- Can be prototyped/demonstrated convincingly with a few weeks of effort.
- Require relatively limited capital investment to get to a validated business concept.

Create nice informative titles for your five best opportunities and describe each in 50-100 words. Go to the Darwinator (www.darwinator.com), register for an account using registration code “6257” and select the tournament “MAR4933”. Submit your five best opportunities by noon on Sep. 13 at the very latest.

Note: the ideas submitted to the Darwinator are assumed to be the property of those who submit them. Of course, basic ethical behavior is assumed. These ideas should not be shared outside of the class without the permission of the originator.

- 14-Sep to 16-Sep** By midnight Sep. 16: Return to the Darwinator and evaluate at least 50 opportunities. This takes at least one hour and the system is slow when a lot of people are using it, so plan ahead and don’t wait until 11pm Sunday night. (You may evaluate up to 100 – but no less than 50 – opportunities.)
- 17-Sep to 20-Sep** Examine the Darwinator data for the opportunities you submitted by logging into the Darwinator and viewing your reports. Based on the data, your own beliefs and passions, and any additional investigation you have done, select one opportunity to pitch in class on Sep. 20.
THE OPPORTUNITY YOU SELECT MUST BE ONE THAT YOU IDENTIFIED, UNLESS YOU OBTAIN PERMISSION FROM A CLASSMATE TO USE THEIRS. Please use one of the two methods described in reading #11 (i.e. screening based on criteria or RWW) as part of the process for selecting an opportunity.
- 20-Sep** Prepare a 90-second pitch and a single PowerPoint slide for your selected opportunity. You will have up to 90 seconds (enforced by a bell) to describe your opportunity to your classmates. If this opportunity is one that you have been working on prior to the beginning of this class, please simply disclose this fact to the class and briefly indicate where you are in the process of developing the

opportunity.

After the individual pitches, you will rate the quality of the pitches you have heard.

Hand in:

- By 12:00 AM on Sep. 20 (midnight before class), email me the single PowerPoint slide describing your opportunity (.ppt format please). I will aggregate them in a single deck to use in class. Please make sure to include your name on the slide and ONLY your last name in the file name.
- In class, please hand in a list of the 5 opportunities you generated and your selection analysis on one page. This should be either a selection matrix based on criteria or a RWW analysis (refer to reading #11).

**By
27-Sep**

Project Proposal (group assignment)

Based on what you have seen and heard so far, and your own preferences, form 3/4-person teams (tentative, depends on class size) around the most highly rated opportunities. You may pursue any opportunity you or your teammates articulated via the Darwinator and/or pitched in class. You may also abandon these opportunities and pick an entirely new opportunity (i.e., don't panic if you feel you really should abandon your original opportunity for a better prospect.)

Please take the time to put together a team that will work together well in terms of schedules, work places, and different skills.

Hand in:

- List of team members
- Group project proposal (should not exceed one page):
 - Explain what opportunity you are pursuing
 - Explain why you chose this opportunity (e.g., what are the advantages and disadvantages of the product concept compared with the status quo?)

4-Oct

Contextual Research (group assignment)

Based on the opportunity you decided to pursue as a team, and armed with the techniques we will have discussed in class by then, find a venue for observation and/or inquiry that will tell you something interesting about people's needs when using products in the chosen domain. Pick a place where you can see mainstream needs, extreme needs, cultural attitudes and/or analogous behavior.

- Take 3-5 photos or shoot some video. Make notes about the place and how people are interacting in the space.
- Make several interpretations of what you see. Don't just stay at the observational level. Peel back the layers. Go deep.

Based on the insights you have gathered, develop 2-3 preliminary new product/business variants. Please make sure to fully document the development

process, including needs and ideas that are not subsequently acted upon.

In class:

- Present only the most exciting findings from your research (you will go into more detail in your report)
- Pitch your preliminary product/business ideas to receive feedback from your classmates. Use visual materials (e.g., sketches or rough prototypes) to communicate your ideas effectively and unambiguously.
- Each team will have up to 10 minutes to present, to leave time for feedback, so plan accordingly.
- You do not need to use PowerPoint. If, however, you wish to share critical visual materials (e.g., critical snapshots that illuminate your findings or sketches of your product ideas), make sure to email me up to 4 slides in .ppt format (visuals only) by 12:00 AM on Oct. 4 (midnight before class). I will aggregate them in a single deck to use in class. Please make sure to include ONLY your team number in the file name (e.g., “team1.ppt”).

Hand in:

- A written report of your contextual research findings and conclusions
- Make sure to include all your observation/inquiry data and interpretations.
- A clear depiction of your top 2-3 product alternatives, along with their positioning statements and relative strengths.

I will assess the scope and depth of interpretations and the proposal's quality.

1-Dec Final project presentation and report (group assignment)

By this date you will have developed your concept and researched the marketplace in which it will compete, tested the concept with real potential customers, collected customer feedback, and made appropriate modifications to your prototype. As will be emphasized in class, the development process should include preparation of prototypes, which will advance your product/business idea and enable you to test it with real potential customers. The prototypes can be made of any material (if it is a service, you may wish to present a storyboard, video, and/or blueprint of the experience).

Make sure to fully document the development process, including ideas which were not subsequently acted upon.

For class presentation:

- Present your “proof-of-concept” prototypes, sketches, videos, or product renderings to clearly communicate your idea.
- Present information for the potential customer to understand your product:
 - A clear positioning statement and core benefit proposition
 - A clear definition of the target market
 - Key customer needs in the target market/segment

- Describe how you tested your prototype and the customer feedback you received.
Remember that negative feedback and failed ideas are legitimate and form an integral part of the NPD process!

Hand in a written report including:

- All of the above
- A year-one marketing plan (including goals and 4P) and market forecast; these should be informed by your previous market research and the customer feedback you received on your prototype.
- A “premortem” analysis
- Your final report must not exceed ten pages (including everything).

Your project grade will be based on the ongoing deliverables, the final project report, and the in-class presentation during the final session. I will be looking to determine how well you identified customer needs, defined a market, translated customer needs into a prototype, defined the value proposition, and tested the concept to receive meaningful feedback from real potential customers.

Case Study Guidelines and Questions

The case method is not only a very relevant and practical way to learn managerial skills, it is also fun. However, it can be a bit confusing if you don't know much about it. This quick note is intended to remove the confusion, suggest how you can get the most out of it, and clarify my expectations of you for our upcoming class discussions.

1. As you prepare the case, first read the case very fast, asking yourself "What, broadly, is the case about, and what types of information am I being given to analyze?"
2. Then, read the case again, this time very carefully, underlying key facts and writing marginal notes as you go. Ask yourself: "What are the basic problems this manager has to resolve?" Put yourself in the manager's position and make the manager's problem your problem.
3. Use the study questions for each case (below) to sort out the relevant considerations and facts, and develop a set of recommendations supported by your analysis.

Steps 1 and 2 are more effective if you have worked by yourself.

Please only use data and facts included in the case when preparing the analysis. There is no "right" solution to the situation described in the case, and my evaluation will focus on the quality of your analysis and arguments rather than whether you had the "right" answers.

The analysis in class will be entirely discussion-based and student-driven. You will benefit most if you participate actively in the debate, express your views, and challenge others. During class, if you are aware of a situation that relates to the topic being discussed and, in your opinion, would enrich the discussion, don't hesitate to share it with the class.

Study questions for the Sweetwater case:

1. Using your own perspective, what are the most important consumer needs in the water purifier market? You might want to interview a few wilderness enthusiasts to help answer this question.
2. How can you structure this user's needs data to assist Sandy Platter in creating his product concept?
3. How do competitors' products meet those needs?
4. What characterizes an outstanding concept for a water purification device for backpackers and other outdoor enthusiasts?

Study questions for the IDEO case:

1. How would you characterize IDEO's process, organization, culture, and management?
2. Decision point: should IDEO accept the Visor project as is (on a dramatically reduced schedule)? Should they try to persuade Handspring's management to change its

aggressive launch schedule? Or should they simply decline the project? In your discussion, please consider the IDEO and Handspring perspectives.

Study questions for the Bank of America case:

1. How would you characterize Bank of America's new system for developing new services? Focus on its process, organization, management, and culture.
2. Compare Bank of America's approach to other product development systems. What are the differences? What are the similarities? Does it matter if it is a product or service that is being developed?
3. What is the role of experimentation? How can companies maximize their learning from experimentation?
4. Decision point: Should Butler and Brady accept ten additional bank branches into its experimentation portfolio? Why or why not? Please be prepared to discuss your specific plans on how they should respond to senior management's offer.

Study questions for the Clocky case:

1. What are the key marketing challenges facing Gauri Nanda? Which are most crucial to effectively bring her new product to market?
2. Nanda has several options for positioning Clocky. How would you segment the potential market for Clocky? Are there additional segments other than the "Need" and "Fun" target markets outlined in the case? On which target market segments should Nanda focus? Outline the value proposition appropriate for each target market segment.
3. Based on data contained in the case, what is the market size (in \$) for alarm clocks? What is Nanda's cost of goods sold (per unit)?
4. Which of the positioning options are most feasible given the product development of Clocky to date and Nanda's goals, resources and capabilities? Do you see the positioning of Clocky changing over time? Which of the positioning options are most valuable to Nanda given her aspirations as an entrepreneur?
5. Given your chosen positioning option, recommend product design/features for Clocky, manufacturing location, pricing, retail channels and distribution plan, and marketing communications. Be sure that your launch plan recognizes Nanda's budgetary constraints.
6. What are the rewards and the risks of the flurry of media attention surrounding Clocky one year prior to its launch? How can Nanda better capture the rewards and minimize the risks? How would you manage continued media interest given the product is not completed?

Study questions for the Hasbro Games – POX case:

In mid 2000, Hasbro Games Division is preparing for the launch of the "next phenomenon of the toy and game history:" POX. Matt Collins, director of product marketing, is soliciting proposals for the launch of the innovative game. Two competing proposals are being evaluated:

- A campaign that uses primarily television and print advertising proposed by Grey Worldwide (expected cost \$1.4 million).
 - A campaign intended to generate significant buzz for the game, by taking over a town near LA the event would bring to life the story behind POX. The campaign was proposed by Target Market Promotions (expected cost \$1 million).
1. Which of the two proposals do you support? Why?
 2. Do you have any suggestions on how to modify the proposal you support to maximize the adoption of POX (given the game's novel characteristics)?

Assignment questions for the Nestlé case (hand in a summary of your analysis):

1. Using the BASES model described in Exhibit 9, forecast the estimated demand (trial and repeat) for the two Pizza options under consideration: Pizza and Toppings and Pizza Only. Most of the data needed for the forecasting is available on pages 15 and 34 (Exhibit 21).

Helpful Hints:

In Exhibit 21, there is a big difference between Contadina users and nonusers on the "top two box" scores. This will obviously affect the forecast, depending on what proportions are used for Contadina users versus nonusers in the population.

On page 14 (2nd to last paragraph), Nestlé's marketing research department cautions us that parent brand usage could vary from 5% to 25%. It would be worthwhile to judge the sensitivity of the forecast under 5%, 15%, and 25% parent brand penetration scenarios.

2. What can you infer from exhibits 13, 14, and 15, regarding the pizza opportunity?
3. How does the pizza concept-test data (Exhibits 19, 20, and 21) compare to the pasta concept-test data (Exhibit 6)? What can you learn from the comparison?
4. What can you conclude from Exhibits 23 and 24 (include Exhibit 18 if you wish)?
5. In general, how would you compare the pizza opportunity to the pasta opportunity? What are the similarities? Differences?
6. Why was the pasta product so successful?
7. Would you launch the pizza? Why?

Study questions for the Hasbro Games – TiVo case:

1. Analyze the situation from the consumer's standpoint. What is TiVo? What factors facilitate its adoption? What factors make adoption difficult? Who is TiVo best suited for?
2. Now adopt the standpoint of the networks, the advertisers, and the cable/satellite companies. What do they want TiVo to be? Think about the competition. What are Microsoft's potential strengths and weaknesses in this market?
3. How would you characterize TiVo's action plan as described at the end of the case? How do you evaluate the planned communication campaign? Does your situation analysis suggest an alternative plan?

Study questions for the Aqualisa case:

1. What is the Quartz value proposition to plumbers? To consumers?
2. Why is the Quartz shower not selling?
3. Aqualisa spent three years and 5.8 million developing the Quartz. Was the product worth the investment? Is Quartz a niche product or a mainstream product?
4. Aqualisa currently has three brands: Aqualisa, Gainsborough, and ShowerMax. What is the rationale behind this multiple brand strategy? Does it make sense?
5. What should Rawlinson do to generate sales momentum for the Quartz product? Should he change his marketing strategy to target consumers directly, target the DIY market, or target developers? Should he lower the price of the Quartz? Or should he do something different altogether?